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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,852	03/30/2004	Hyun Sook Kim	1594.1363	2332

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EXAMINER	
PERRIN, JOSEPH L	

ART UNIT	PAPER NUMBER
1746	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/811,852	KIM ET AL.	
	Examiner	Art Unit	
	Joseph L. Perrin, Ph.D.	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) *13-18 and 22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,19-21,23 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 18 July 2007 have been fully considered but they are not fully persuasive.

2. Regarding the rejection under §112, second paragraph, applicant's amendment including a control unit is noted. However, it is still unclear how the control unit determines the type of detergent. The broad recitation of "determining" reads on any type of determination including those outside of the scope of the original disclosure as filed and not limited to the user buttons as described by applicant in the instant remarks. Thus, the arguments are not commensurate in scope with the claimed invention and the rejection is therefore maintained.

3. Regarding the §102 rejection over PASTRYK, the Examiner thanks applicant for noting the typographical error in the listing of the patent number and properly considering the merits of the body of the rejection. Regarding PASTRYK, applicant's arguments in view of the amendment is persuasive and the rejection of claims 1-6, 12, 19 & 20 are withdrawn. Regarding claims 23-24, applicant argues the "wherein" clauses of the intended use of the apparatus and not the structural limitations of the claimed apparatus. However, it is fundamental that an apparatus claim defines the structure of the invention and not how the structure is used in a process, or what materials the structure houses in carrying out the process. *Ex parte Masham*, 2 USPQ2d 1647, 1648 (BPAI 1987). See also *In re Yanush*, 477 F.2d 958, 959, 177

USPQ 705,706 (CCPA 1973); *In re Finsterwalder*, 436 F.2d 1028, 1032, 168 USPQ 530, 534 (CCPA 1971); *In re Casey*, 370 F.2d 576, 580, 152 USPQ 235,238 (CCPA 1967). As long as the apparatus of PASTRYK is capable of dissolving powdered detergent and spraying into the rotary tub, the prior art apparatus meet the requirements of the claimed feature. Applicant has not established on this record any structural distinction between apparatus within the scope of the rejected claims and the apparatus fairly described by PASTRYK, and no such structural distinction is apparent. Accordingly, the position is maintained that recitation of PASTRYK read on each and every structural limitation claimed and is fully capable of performing the claimed intended use.

4. Regarding HARDAWAY (similar to PASTRYK), applicant presents substantially cumulative arguments as those presented for PASTRYK. Applicant's arguments in view of the amendment is persuasive and the rejection of claims 1-6, 12, 19 & 20 are withdrawn. However, applicant's arguments for claims 23-24 are not persuasive for at least reasons indicated above for PASTRYK.

5. Regarding the §103 rejection over PASTRYK or HARDAWAY in view of MCALLISTER, applicant argues that PASTRYK & HARDAWAY do not disclose claim 1 and therefore the combination for the dependent claims must fail. In view of applicant's amendment to the claims, this rejection is withdrawn.

6. Regarding the §103 rejection over PASTRYK or HARDAWAY in view of DENISAR, applicant argues that PASTRYK or HARDAWAY in view of DENISAR does

not disclose claim 1 and therefore the combination for the dependent claims must fail.

In view of applicant's amendment to the claims, this rejection is withdrawn.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-12 & 19-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 1 & 19, the control unit "determining whether a detergent used is a powdered detergent or a liquid detergent" is considered new matter because the newly introduced limitation is broader in scope than the original disclosure and includes detergent determining configurations (i.e. sensing or detecting) not contemplated by applicant, such failing to convey to one skilled in the art that, at the time the application was filed, applicant had possession of the claimed invention. Thus, the "determining" of the control unit should be consistent in scope with the original disclosure as filed and as argued by applicant in the instant remarks.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-12 & 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In independent claims 1 & 19, the control unit "determining whether a detergent used is a powdered detergent or a liquid detergent" renders the claim indefinite because such language suggest some type of sensing/detecting/determining of the type of detergent but no such structure is claimed. That is, how is the detergent "determined"? Is the type of detergent sensed or inputted by the user? Since the original disclosure appears to support input buttons for the types of detergent but does not appear to support any sensing or detecting means, a §112, first paragraph issue may exist since the scope of the claimed invention reads on both. Clarification and correction are still required.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 23 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,870,906 to PASTRYK et al. ("PASTRYK"). PASTRYK discloses a drum washing machine with water tub (24), rotary tub (25), plural detergent supplies (50/52/54), a detergent feed pipe (74) in fluid communication between the water tub and a spraying unit (41) for spraying into the rotary tub, a detergent feed unit including a

detergent dissolution space (70) and pump (28) which dissolves detergent from the water tub to the rotary tub through the feed pipe, and conventional control means for operating the washing machine (including driving the pump and supplying/circulating water and detergent), controllable water feed valves (34/35/37). See Figures 1, 6, and relative associated text. Accordingly, recitation of PASTRYK reads on applicant's claimed apparatus.

13. Claims 23 & 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,233,718 to HARDAWAY et al. ("HARDAWAY"). HARDAWAY discloses a drum washing machine with water tub (139), rotary tub (35), plural detergent supplies (60/62/64), a detergent feed pipe (with valve "J") in fluid communication between the water tub and a spraying unit (51) for spraying into the rotary tub, a detergent feed unit including a detergent dissolution space (80) and pump (38) which dissolves detergent from the water tub to the rotary tub through the feed pipe, and conventional control means for operating the washing machine (including driving the pump and supplying/circulating water and detergent), controllable water feed valves (44/45). See Figures 1, 6, and relative associated text. Accordingly, recitation of PASTRYK reads on applicant's claimed apparatus.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 1-6, 12, 19 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of either U.S. Patent No. 5,438,507 to KIM et al. ("KIM") or U.S. Patent No. 5,140,842 to KIUCHI et al. ("KIUCHI").

Recitation of PASTRYK and HARDAWAY are repeated here from above. While both PASTRYK and HARDAWAY disclose a washing machine using a control system, plural detergent supplies and the use of either powdered or liquid detergent, neither reference discloses the control unit capable of "determining whether a detergent used is a powdered detergent or a liquid detergent". KIM teaches that it is known in the washing machine art to provide a control system to determine the selected use of either a powdered detergent or a liquid detergent (see entire document, for instance, col. 2, lines 37-44) and improved control of determining "kind of detergent to be used" (col. 2, line 54 – col. 3, line 29). KIUCHI teaches that it is known in the washing machine art to provide a control system that judges "whether liquid detergent or powdery detergent is used" (see entire document, for instance, col. 3, line 66 – col. 4, line 35).

All of the component parts are known in PASTRYK, HARDAWAY, KIM & KIUCHI. The only difference is the combination of "old elements" into a single washing machine.

Thus, it would have been obvious to one having ordinary skill in the art to provide the detergent determining system of either KIM or KIUCHI with the washing machine control system of either PASTRYK or HARDAWAY, since the operation of the detergent determining system of KIM & KIUCHI is no way dependent on the operation of the other washing machine components of PASTRYK & HARDAWAY, and a detergent determining system could be used in combination with a standard washing machine to achieve the predictable results of selecting desired detergent type based on load type.

18. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of KIM or KIUCHI, and further in view of MCALLISTER. Recitation of PASTRYK, HARDAWAY, KIM & KIUCHI are repeated here from above. While both disclose drums rotated by motors, neither appears to specifically disclose rotating the drums in opposite directions (i.e. oscillating). MCALLISTER teaches that it is known in the washing machine art to provide oscillating action for the purpose of enhanced mechanical action in washing clothes, including both horizontal axis and vertical axis rotary drum washing machines (see entire document, for instance, paragraph [0013]. Therefore, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the washing machines of PASTRYK or HARDAWAY (in view of KIM or KIUCHI) with oscillating washing action for the purpose of enhancing mechanical washing action in a washing machine.

Further regarding claim 8, both circulating the water and reciprocating the water are for the same purpose (i.e. thoroughly dissolving detergent in the washing water prior to spraying into the washing machine) and the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to either reciprocate the water or circulate the water to achieve said same purpose since both appear to be functional equivalents and achieve the same purpose. The Examiner notes that one-way pumps and reversible pumps are common knowledge in the art and the selection of either type of pump to achieve enhanced detergent dissolving would

have been within the level and knowledge of one having ordinary skill in the art absent secondary considerations.

19. Claims 9 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of KIM or KIUCHI. Recitation of PASTRYK, HARDAWAY, KIM & KIUCHI are repeated here from above. While PASTRYK discloses operating the pump (28) to circulate detergent and water through mixing tank (70) for the purpose of thoroughly dissolving detergent in the washing water, which would necessarily provide a certain degree of reciprocation of the water flow, PASTRYK does not expressly disclose driving the pump to "reciprocate" the detergent for the purpose of thoroughly dissolving detergent in the washing water (note that HARDAWAY provides a similar system with mixing tank (80)). Both circulating the water (in PASTRYK and HARDAWAY) and reciprocating the water (instant invention) are for the same purpose (i.e. thoroughly dissolving detergent in the washing water prior to spraying into the washing machine) and, absent secondary considerations, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to either reciprocate the water or circulate the water to achieve said same purpose since both appear to be functional equivalents and achieve the same purpose.

20. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over PASTRYK or HARDAWAY in view of KIM or KIUCHI, and further in view of DENISAR. Recitation of PASTRYK and HARDAWAY are repeated here from above. While

PASTRYK, HARDAWAY, KIM & KIUCHI disclose the washing machine operated by the user via a conventional key input controller (18/20/22) neither appears to expressly disclose the key input controller for inputting specified detergents. DENISAR teaches that it is known in the washing machine art to provide key input controls on a detergent dispensing unit for allowing a user to select specific laundry additives (capable of being liquid or solid) (see automatic dispenser 10 in Figure 1 and relative associated text). Therefore, the position is taken that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the inputting control means of PASTRYK or HARDAWAY with the selective detergent selecting inputting control means of DENISAR to enable a user to selectively dispense one of plural detergents as required to perform the desired washing operation.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

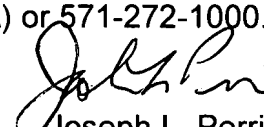
22. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1746

JLP